

Product Overview

AN-80i

The Access Node 80i system is manufactured by Redline Communications -- a world leader in design and production of Broadband Fixed Wireless (BFW) systems.

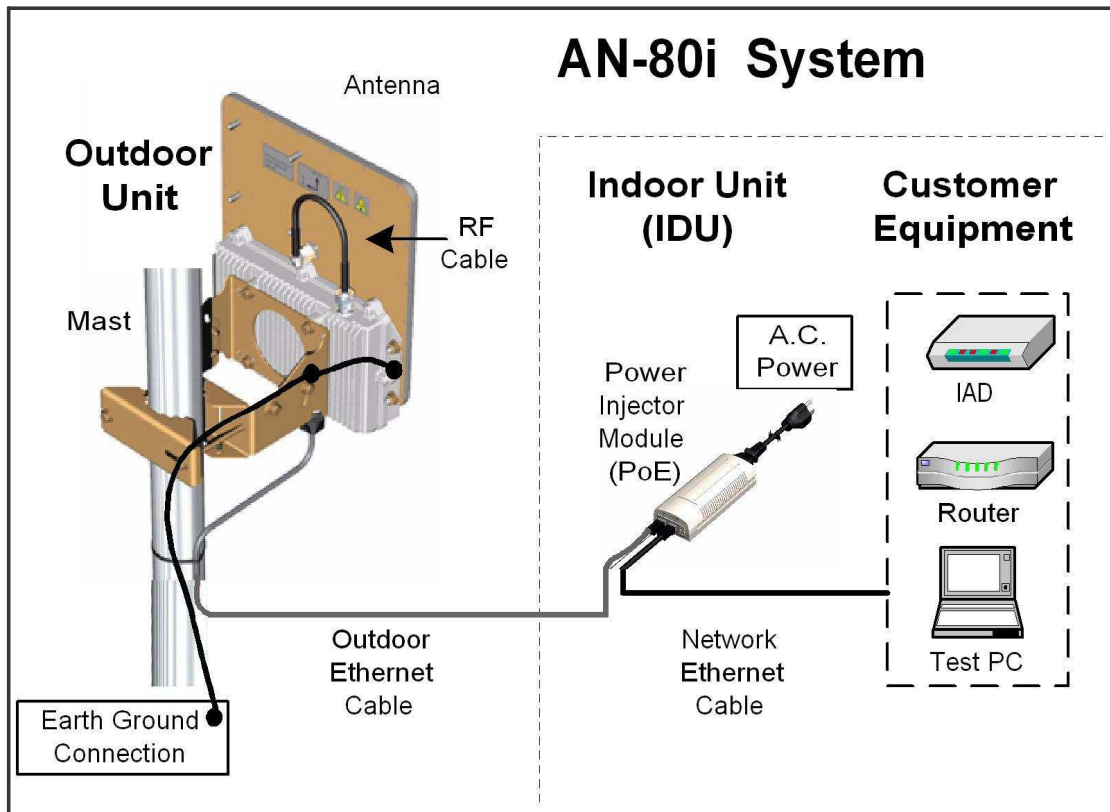


Figure 1: AN-80i System Components

The AN-80i is a high-performance, high-speed wireless Ethernet bridge. The system operates in the 3.3-3.8 GHz band and includes advanced technologies to address inter-cell interference. The system also delivers enhanced security through a proprietary over-the-air encryption scheme. The AN-80i can be equipped with a narrow beam antenna to provide high directivity for long-range operations over 50 miles (80 km) in clear line of sight (LOS) conditions. The AN-80i system is for use in a commercial, industrial or business environment. The system is equipped with an Automatic Transmitter Power Control (ATPC) function to automatically adjust transmission levels and achieve optimum performance.

Each wireless link is comprised of two AN-80i units. One unit is configured for master mode and controls the wireless link; the master function is transparent to all Ethernet operations. The AN-80i system utilizes Redline's advanced Medium Access Control (MAC) design to provide efficient transmission of data. The AN-80i system uses time division duplexing (TDD) to transmit and receive on the same RF channel. The unit

designated 'master' uses a scheduled request/grant mechanism to arbitrate requests for bandwidth from the remote unit -- providing non contention-based traffic with predictable transmission characteristics.

The AN-80i consists of an integrated outdoor unit with a selection of available external antennas, and an indoor PoE power injector that provides operational power for the AN-80i and connection to the Ethernet network. The AN-80i outdoor unit is housed in a weatherproof aluminum alloy case.

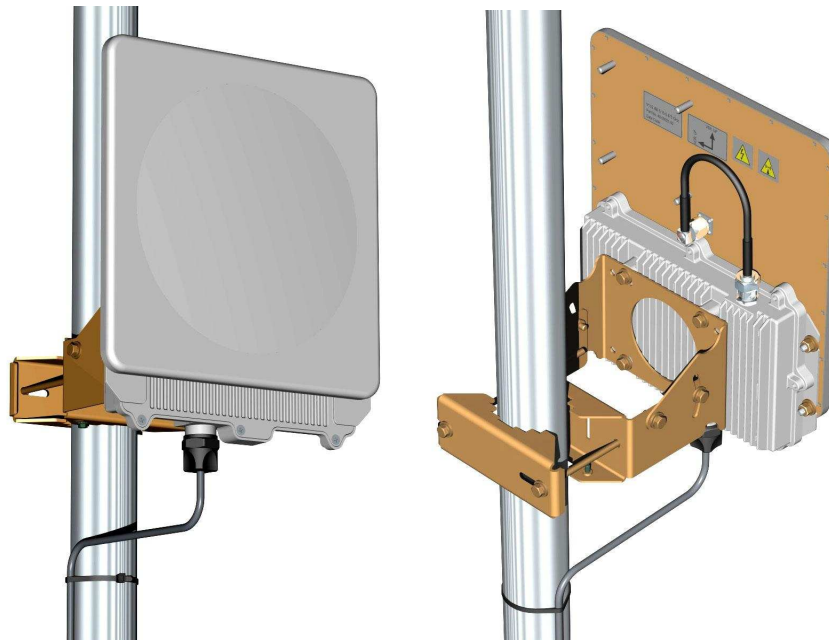


Figure 2: Intro - AN-80i System with Integrated Antenna

Ethernet Port

The AN-80i auto-sensing 10/100Base-T Ethernet port connects to the indoor PoE Adapter through the outdoor Ethernet cable. The AN-80i receives DC power and exchanges data with the indoor network through this port.

RF Port

The RF port (female N-type connector) is used for sending/receiving the RF signal to/from the antenna. A short coaxial cable is provided to connect the transceiver to the external antenna.

Grounding Connection

A grounding connection is located on the AN-80i chassis. Use this screw to terminate a grounding wire.

Mounting Bracket

There is a lightweight antenna bracket available for convenient mounting of one foot flat panel antennas, and a heavy-duty antenna mounting bracket available for two foot flat panel antennas and parabolic antennas.

Antenna Alignment

The AN-80i includes an audible antenna alignment tool to assist in pointing the antenna for maximum signal strength. The signal will sound infrequently when a low signal is detected, and more often as the signal strength increases. The audible signal can be enabled and disabled through the Telnet or Web interface.

Indoor Power Block (PoE Power Injector)

The indoor Power-over-Ethernet (PoE) power block is auto-sensing 90-260 VAC. The power block provides two Ethernet interfaces:

1. The auto-sensing 10/100Base-T Ethernet port (RJ-45 socket) port to carry signal and power to the AN-80i outdoor unit.
2. The auto-sensing 10/100Base-T Ethernet port (RJ-45 socket) for connection to local network equipment.



Figure 3: AN-80i Indoor Power-over-Ethernet (PoE) Module